Anti-γ-Catenin (C-terminal)

Cat. #	**CM1111**
Host	**Mouse Monoclonal IgG2a**
Size	**100µl**

Background:
Plakoglobin (γ-catenin) is a catenin family member that was identified as a component of desmosomes. It associates with various cell adhesion related proteins, such as desmoglein and cadherins. γ-Catenin has high homology to β-catenin and, like β-catenin, it can associate with the cadherins, E-cadherin and N-cadherin. It has been proposed that one molecule of α-catenin and at least one molecule of β-catenin and γ-catenin simultaneously bind to a single cadherin molecule. A 19-amino acid sequence of desmoglein was found to be critical for binding of γ-catenin. This region has significant homology to the catenin-binding domain of classical cadherins, thus suggesting a common mechanism for γ-catenin localization at both adherens junctions and desmosomes. Phosphorylation of tyrosine residues in γ-catenin can modify its interactions with other proteins. Phosphorylation of tyrosine 644 decreases γ-catenin association with α-catenin, but increases binding to desmoplakin. Fer kinase can phosphorylate tyrosine 550, which increases γ-catenin binding to α-catenin. Thus, tyrosine phosphorylation may be important for regulation of γ-catenin protein-protein interactions within desmosomal complexes.

References:
McCrea, P.D. et al. (1991) Science 254:1359.
Miravet, S. et al. (2003) Mol. Cell. Biol. 23(20) :7391.

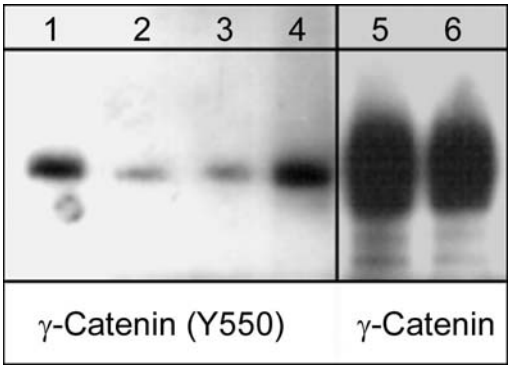
Immunogen:
Clone (M111) was generated from a recombinant protein that includes amino acid residues in the C-terminal region of rat γ-Catenin. This peptide sequence is highly conserved in human and mouse γ-Catenin.

Buffer and Storage:
Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at –20°C. Do not aliquot. Stable for 1 year.

Applications:

Western blotting	1:1000 dilution†
ELISA	1:2000 dilution
Immunoprecipitation	1-5 µl

End user should determine optimal dilution for their particular applications and experiments.
†Membrane was incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.



Western blot analysis of γ-Catenin immunoprecipitated from lysates prepared from A431 cells treated with pervanadate. The immunoprecipitation was performed using mouse monoclonal anti-γ-Catenin. The blots were probed with either anti-phospho-γ-Catenin (Tyr-550) or anti-γ-Catenin antibodies. The immunoprecipitated γ-Catenin was untreated (lanes 1 & 5) or treated with alkaline phosphatase (lanes 2 & 6) then probed with the antibodies. In addition, the anti-phospho-γ-Catenin (Tyr-550) was used in the presence of phospho-γ-Catenin (Tyr-550) peptide (lane 3) or phospho-γ-Catenin (Tyr-644) peptide (lane 4).

Specificity:
The antibody detects an 84kDa* protein corresponding to the molecular mass of γ-Catenin on SDS-PAGE immunoblots of A431 and Hct116 src transformed cells. In addition, this antibody recognizes only γ-Catenin in immunoprecipitations using anti-γ-Catenin versus anti-β-Catenin.
*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Related Products:
CP1121 γ-Catenin (Tyr-550), phospho-specific Rabbit Polyclonal
CP1081 β-Catenin (Tyr-142) (γ-Catenin (Tyr-133)), phospho-specific Rabbit Polyclonal
CP1201 γ-Catenin (C-terminal) Rabbit Polyclonal
CP1191 β-Catenin (Tyr-86), phospho-specific Rabbit Polyclonal

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